

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q94181

Takeyuki SUGIURA

Appln. No.: 10/573,969

Group Art Unit: 1652

Confirmation No.: 9936

Examiner: Iqbal Hossain CHOWDHURY

Filed: March 30, 2006

For: TETRAHYDROFOLATE SYNTHETASE GENE

**RESPONSE TO RESTRICTION REQUIREMENT**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This responds to the Restriction Requirement, dated May 1, 2007. The Examiner requires that Applicant elect one of the following groups for prosecution on the merits:

Group I        -        Claims 1-9, 12 and 19, drawn to molecule of SEQ ID NO: 1 encoding a protein having 10-formyl-tetrahydrofolate synthetase activity, 5, 10-methenyl-tetrahydrofolate cyclohydrolase activity, and 5,10-methylene-tetrahydrofolate dehydrogenase activity, transformant and a kit comprising said DNA for diagnosing colon cancer.

Group II        -        Claims 10 and 19 [*sic.* 11], drawn to a polypeptide of SEQ ID NO:2 having 10-formyl-tetrahydrofolate-synthetase activity, transformant and a kit comprising said DNA for diagnosing colon cancer.

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Group III - Claims 13 and 19, drawn to an antibody of said protein and kit comprising said antibody.

Group IV - Claims 14 and 15, drawn to a method for identifying a compound that inhibits cell growth and enhances the activity of said protein.

Group V - Claims 16-18, drawn to a method of diagnosing colon cancer by detecting a nucleic acid molecule encoding a polypeptide of SEQ ID NO:1.

Group VI - Claim 20, drawn to a preventative agent and/or therapeutic agent for colon cancer, which comprises an inhibitor of said protein.

The Examiner asserts that the Restriction Requirement is legally correct, because the claims of this National Stage Application are not so linked as to form a single general inventive concept under PCT Rule 13.1. Specifically, the Examiner states that the single general inventive concept shared by Groups I-VI is a DNA encoding a polypeptide having three activities of 10-formyl-tetrahydrofolate synthetase activity, 5,10-methenyl-tetrahydrofolate cyclohydrolase activity and 5,10-methylene-tetrahydrofolate dehydrogenase activity, and/or a cell growth accelerating activity. However, the Examiner asserts that such DNA is known in the art, citing WO 2002/083873.

In response to the Restriction Requirement, Applicant elects Group V, claims 16-18 for examination. This election is made with traverse.

The present claims 1-3 require specific nucleotide sequences and the present claim 4, requires that the protein encoded by the DNA have cell growth accelerating activity. However,

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WO 2002/083873 does not disclose a polynucleotide that comprises SEQ ID NO:1 or the claimed fragments thereof (claims 1-3). Nor does WO 2002/083873 disclose a protein that has three of the above-recited activities, one being cell growth accelerating activity (claim 4).

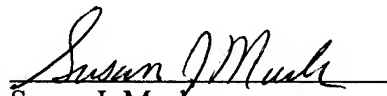
Accordingly, WO 2002/083873 does not destroy the novelty of the claimed invention. Therefore all groups should be examined together.

Applicant submits that if any of the elected claims is found to be allowable, claims dependent therefrom should similarly be considered allowable in the same application.

Applicant reserves the right to file a Divisional Application directed to non-elected claims 1-15 and 19-20.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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Date: June 1, 2007